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**PRESIDENCY UNIVERSITY  
BENGALURU  
SCHOOL OF MANAGEMENT**

**MIDTERM LAB EXAMINATION**

**Even Semester:** 2018-19  
**Course Code:** HRM 403  
**Course Name:** HR Analytics  
**Programme & Sem:** MBA IV

**Date:** 19 February 2019  
**Time:** 2 Hours  
**Max Marks:** 40  
**Weightage:** 20%

**Instructions:**

- (i) Copy charts and tables to word file and write your interpretation
- (ii) Save the files only desktop: save all files in a folder (folder name should be your "Roll No")
- (iii) Use of internet, pen drive not allowed.

**Exercise 1 – Recruitment (file using MS EXCEL)**

Answer **ALL** the Questions. Question carries **20** marks.

(1Qx20M=20)

1. Recruitment data for a fictional organization is provided.

Data	Description
attrition	1 - left, 0 - still employed
performance_rating	1- very poor, 2- poor, 3 - average, 4 - good, 5 - very good
sales_quota_pct	quota achieve in percentage
recruiting_source	different recruitment sources
Gender	Male & Female
Age	Number

Based on the dataset provided:

- a. Give the attrition rates in each recruiting channels grouped by age & gender (4 M)
- b. Analyze the performance rating for different recruitment sources. Give your interpretation. (4 M)
- c. Analyze the sales quota attainment percentage (group) for different recruitment sources. Give your interpretation. (4 M)
- d. Identify the best recruiting channel and worst recruiting channel (8 M)

## Exercise 2 – New data (file using R)

Answer **ALL** the Questions. Question carries **20** marks.

(1Qx20M=20)

2. A big company that wants to understand how their new hires are engaged and performing well. The company wishes to predict which employees require performance improvement.

Data	Description
Employee ID:	Employee identification number
Gender:	(1 – Male and 2 – Female)
New Hire:	(0 – No and 1 – Yes)
Engagement	(1 – Low, 2 – Medium, 3 - High)
Vacation days taken in previous year	
Rating	(1- very poor, 2- poor, 3 - average, 4 - good, 5 - very good)
Salary	- Numerical values
Department:	Department in which employee is working
Job Level:	(Salaried employee, Hourly wages)

- a. Create any two cross tabulation with *New hire and rating*, *new hire and department* or *new hire and engagement* and assign them to two variables *crosstab1* and *crosstab2* respectively. (4 M)
- b. Create any three charts or plots (boxplot, histogram, plot etc - for any variables which will help us to understand who are performing better i.e. new hires or experienced ones) (6 M)
- c. Use correlation and regression for the above dataset for predicting which employee require performance improvement. (10 M)



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**PRESIDENCY UNIVERSITY  
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SCHOOL OF MANAGEMENT**

**END TERM FINAL LAB EXAMINATION**

**Even Semester:** 2018-19

**Date:** 08 March 2019

**Course Code:** HRM 403

**Time:** 3 Hours

**Course Name:** HR Analytics

**Max Marks:** 80

**Programme & Sem:** MBA & IV Sem

**Weightage:** 40%

**Instructions:**

- (i) Copy charts and tables to word file and write your interpretation
- (ii) Save the **files only desktop**: save all **files in a folder** (folder name should be your **"Roll No"**)
- (iii) Copy the **Excel data file** stored in the folder \\192.168.8.205\Exam
- (iv) Read the **data description carefully in page 2**
- (v) Exercise 1 - Use at least three types of charts – boxplot, density plot, bar graph, point etc to present your findings
- (vi) Exercise 2 - Use pivot table, conditional formatting wherever necessary

**Exercise 1 – Employee Talent and Attrition Data (file using R)**

Answer **all the** Sub Questions. **Each** question carries **10** marks.

(4Qx10M=40)

1. Based on the dataset provided, answer the following questions:
  - a. Analyze the factors influencing Employee engagement and present your findings.
  - b. Analyze the factors influencing Attrition and present your findings.
  - c. Is there any difference in the employee talent level, satisfaction and work-life balance?
  - d. Does working from remote location or on-premise make any difference?

**Exercise 2 – Employee Termination Data (file using MS-Excel)**

Answer **all the** Sub Questions. Each question carries 10 marks.

(4Qx10M=40)

2. Based on the dataset provided, answer the following questions:
  - a. What proportion of our staff are leaving? Where is it occurring?
  - b. How does Age and Length of Service affect termination?
  - c. What is the termination percentage? Does it vary gender-wise, business-unit wise, department-wise and job-title wise?
  - d. Can we predict future terminations? If so, how well can we predict?

### Exercise 1 – Data Description

The fields represent a fictitious data set where a survey was taken and actual employee metrics exist for a particular organization. None of this data is real.

ID	Employee ID
Name	Employee Name
Department	The functional department that the employee belongs to.
Location	The working geography that the employee belongs to in a matrix organization.
Role	The employee's position or title.
Gender	Gender or how the person identifies.
Will_Relocate	Is the employee willing to relocate?
Critical	Is the employee critical to the organization?
Trending_Perf	How is the employee trending in performance this year?
Validated_Talent_Level	This field senior management's view of what the manager stated.
Percent_Remote	The percentage of the employee's work that is done remotely.
EMP_Sat_OnPrem	One indicator from a survey that was sent to employees by a third party. On prem (On premise) means that the employee maintains a high percentage of work on the corporation's physical work locations.
EMP_Sat_Remote	One indicator from a survey that was sent to employees by a third party. Remote (distance employee) means that the employee does a high percentage of work away from the corporation's physical work locations.
EMP_Engagement	One indicator from a survey that was sent to employees by a third party. Engagement represents the employee's feeling about how they feel about being engaged in company activities.
Work_Life_Balance	Employee opinion about their work life balance
Salary	Relative pay grade (low, medium, high) by role.
Attrition	Employee who left the organization
LinkedIn_Hits	The number of times employee visits LinkedIn networking sites.
Emp_Competitive	One indicator from a survey that was sent to employees by a third party. How employee feels about the competitive nature of work in the organization.
Emp_Collaborative	One indicator from a survey that was sent to employees by a third party. How employee feels about the collaborative nature of work in the organization.
Sensor_StepCount	Sentient devices are used to capture certain employee activities. In this case number of steps.
Sensor_Heartbeat(Average/Min)	Sentient devices are used to capture certain employee activities. In this case heartbeat.
Sensor_Proximity(1-highest/10-lowest)	Sentient devices are used to capture certain employee activities. In this case how close they are to their company laptop.

### Exercise 2 – Data Description

- EmployeeID
- Record Date
- Birth Date
- Original Hire Date
- Termination Date (if terminated)
- Age
- Length of Service
- City
- Department
- Job title
- Store Name
- Gender
- termination reason
- termination type (voluntary or involuntary)
- Status Year - year of data
- Status - ACTIVE or TERMINATED during status year
- Business Unit -Stores or Head Office